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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/636,061

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EXAMINER

BAE, JI H

ART UNIT

PAPER NUMBER

2115

DATE MAILED: 01/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>		<b>Applicant(s)</b>	
	10/636,061		BRITSON, WAYNE A.	
	<b>Examiner</b>		<b>Art Unit</b>	
	Ji H. Bae		2115	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 07 August 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>8-7-2003</u> .  | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3, 8, and 10-17 are rejected under 35 U.S.C. 102(b) as being anticipated by Broyles et al., U.S. Patent No. 5,978,913.

Regarding claim 1, Broyles teaches a method with steps comprising:

determining when extended diagnostic testing was last performed on the computer system; and

in response to determining extended diagnostic testing has not been performed within a predefined time period, performing extended diagnostic testing on the computer system [col. 2, lines 1-14].

Regarding claims 2, 13, and 14, Broyles further teaches the step of examining a timestamp indicative of when extended diagnostic testing was last performed on the computer system [col. 2, lines 5-8].

Regarding claim 3, Broyles further teaches the step of updating the timestamp with the current time after performing extended diagnostic testing [col. 3, lines 17-27].

Regarding claims 8, 12, and 17, Broyles teaches the step of receiving the predefined time period from a user [col. 1, lines 61, 62, user-programmable value].

Regarding claims 10 and 15, Broyles teaches that the method of claim 1 may be modified to include additional levels of POST testing (with additional tests performed), each with its own predetermined time period [col. 6, lines 1-10].

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Regarding claim 11, Broyles teaches the step of receiving from the user an indication of the one or more diagnostic tests in the set [col. 3, lines 33-36, col. 5, lines 25-30].

Regarding claim 16, Broyles teaches the providing of an indication that the one or more diagnostic tests have not been performed within the one or more corresponding specified time periods [col. 5, lines 62-64].

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over applicant's admission of obviousness.

Regarding claim 4 and 5, one page 8, paragraph 0025, applicant states:

"Of course, **one skilled in the art will recognize** that, rather than rely on a stored timestamp, other timing techniques may be utilized. For example, an active timer..."

Claims 6, 7, and 9 rejected under 35 U.S.C. 103(a) as being unpatentable over Broyles.

Regarding claims 6, 7, and 9, Broyles teaches the steps of:

indicating extended diagnostic testing has not been performed within a specified period of time [col. 5, lines 62-64];

allowing users to choose whether or not to perform extended diagnostic testing [col. 3, lines 10-14, col. 5, lines 18-21];

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allowing a user to enter a predefined time period [col. 1, lines 61,62, user-programmable value].

Broyles does not explicitly teach that these steps are accomplished by means of a graphical-user interface. However, based on Broyles' own teaching, it would have been obvious to one of ordinary skill in the art to do so. Broyles suggests at least a visual interface [col. 5, lines 62-64], and he additionally teaches that these steps may be implemented as part of the Windows operating system [col. 6, lines 11-13].

Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Broyles in view of Ikeda et al., U.S. Patent No. 5,349,664.

Regarding claim 18, Broyles teaches the methods/process of claims 1, 10, and 15, but does not teach a service processor. Broyles also teaches that the invention may be practiced in a multiprocessor system [col. 6, lines 22-25].

Ikeda teaches a multiprocessor system which uses a service processor to perform an initial program load control [col. 1, lines 53-55].

It would have been obvious to one of ordinary skill in the art to combine the teachings of Ikeda and Broyles by implementing the diagnostic testing using a service processor, such as the one taught by Ikeda. The disclosures of both Broyles and Ikeda are directed towards boot-time operations of multiprocessor systems. Although the disclosure of Broyles suggests that the teachings may be applied to a multiprocessor, Broyles does not fully disclose how the teachings would be adapted. Ikeda teaches that a service processor is used to control the initialization of the multiprocessor system. Based on the teachings of Broyles and Ikeda together, it would have been obvious to one of ordinary skill in the art to use the teachings of Ikeda to adapt the teachings of Broyles to a multiprocessor.

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Claims 19-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Broyles in view of Ikeda as applied to claim 18 above, and further in view of Rockwell et al., U.S. Patent No. 5,479,599.

Regarding claim 19, the combination of Broyles and Ikeda teaches the system of claim 18, but does not teach a hardware management console (HMC) in communication with the service processor.

Rockwell teaches a computer system that uses a console for interacting and controlling components [col. 2, lines 33-56].

It would have been obvious to one of ordinary skill in the art to combine the teachings of Rockwell with those of Broyles and Ikeda. All three disclosures are directed towards multiprocessor systems. Rockwell teaches that consoles of some form are required by most computer systems [col. 1, lines 11-13], and also teaches that the console disclosed by Rockwell is to be used in a multiprocessor system. The addition of Rockwell's console would improve the combination of Broyles and Ikeda by providing a graphical, user-friendly way to control/monitor the system [col. 2, lines 27-30].

Regarding claim 20, Broyles teaches the step of indicating that one or more diagnostic tests have not been performed [col. 5, lines 62-64].

Regarding claim 21, Broyles suggests the use of a GUI. Additionally, Rockwell teaches that the HMC uses a GUI display [Fig. 4-16]. Broyles teaches the step of allowing a user to specify periods of time associated with each of the one or more diagnostic tests [col. 1, lines 61, 62, user-programmable value, col. 6, lines 1-10].

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Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Broyles, Ikeda, and Rockwell, as applied to claim 19 above, and further in view of Wang et al., "The New Testability Sins: Don't Atone, Avoid!" (available at <http://www.eetimes.com/isd/columns/OEG20010328S0050>).

Regarding claim 22, Broyles, Ikeda, and Rockwell do not teach that the diagnostic tests comprises logical or array BIST.

Wang et al. discuss the advantaged of using BIST for testing memories [page 2-3, "Embedded memory test"].

It would have been obvious to one of ordinary skill in the art to combine the teachings of Wang with Broyles, Ikeda, and Rockwell. Broyles teaches that memory testing is part of the POST procedure [col. 4, lines 14-15, col. 5, lines 14-17]. The addition of Wang's teachings would improve Broyles by providing a memory test procedure that offers a number of advantages, especially for larger memory sizes.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

Li et al., U.S. Patent No. 6,598,193 B1;

Liebenow, U.S. Patent No. 6,725,368 B1;

King et al., U.S. Patent No. 6,952,659 B2;

Ahrens et al., U.S. Patent No. 6,550,019 B1;

Nichols et al., U.S. Patent No. 6,138,150.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ji H. Bae whose telephone number is 571-272-7181. The examiner can normally be reached on Monday-Friday, 10 am to 6:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Lee can be reached on 571-272-3667. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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